

**Amendments to the Specification:**

Please replace, at the end of the specification, the Sequence Listing filed on October 3, 2001, with the Substitute Sequence Listing, pages 1-9, submitted herewith.

Please replace the paragraph beginning at page 1, line 4 with the following paragraph:

-- This patent application ~~claims priority to~~ is a divisional application of USSN 09/503,954, filed February 14, 2001 ~~2000, now issued as United States Patent No. 6,108,820, which claims priority to~~ ~~and~~ USSN 60/158,774, filed October 12, 1999, ~~each of which are~~ is incorporated herein by reference in ~~their entireties~~ its entirety. --

Please replace the paragraphs at page 3, lines 6-8 with the following paragraphs:

-- FIGS. 1A-C are diagrams showing alignments of conserved JBD domain regions in the indicated transcription factors (SEQ ID NOS: 1-2, 7-8, 11-12, 14 and 17-20).

FIG. 2 is a diagram showing alignments of generic TAT-IB fusion peptides (SEQ ID NOS: 8, 13 and 16). --

Please replace the paragraph beginning at page 25, line 3 with the following paragraph:

-- Delivery of the Therapeutic nucleic acid into a patient may be either direct (*i.e.*, the patient is directly exposed to the nucleic acid or nucleic acid-containing vector) or indirect (*i.e.*, cells are first transformed with the nucleic acid *in vitro*, then transplanted into the patient). These two approaches are known, respectively, as *in vivo* or *ex vivo* gene therapy. In a specific embodiment of the present invention, a nucleic acid is directly administered *in vivo*, where it is expressed to produce the encoded product. This may be accomplished by any of numerous methods known in the art including, *e.g.*, constructing the nucleic acid as part of an appropriate nucleic acid expression vector and administering the same in a manner such that it becomes intracellular (*e.g.*, by infection using a defective or attenuated retroviral or other viral vector; *see* U.S. Patent No. 4,980,286); directly injecting naked DNA; using microparticle bombardment (*e.g.*, a "Gene Gun® GENE GUN®; Biostatic, DuPont); coating the nucleic acids with lipids; using associated cell-surface receptors/transfected agents; encapsulating in liposomes, microparticles, or microcapsules; administering it in linkage to a peptide that is known to enter

**Applicant: Christophe Bonny**  
**U.S.S.N. 09/970,515**

the nucleus; or by administering it in linkage to a ligand predisposed to receptor-mediated endocytosis (see, e.g., Wu and Wu, 1987. *J Biol Chem* 262: 4429-4432), which can be used to "target" cell types that specifically express the receptors of interest, etc. --

Please replace the paragraph beginning at page 35, line 17 with the following paragraph:

-- To determine the radioprotective effects of the TAT-IB peptides, C57 Bl/6 mice (2 to 3 months old) were irradiated with a Phillips RT 250 R-ray at a dose rate of 0.74 Gy/min (17 mA, 0.5 mm Cu filter). Thirty minutes prior to irradiation, the animals were injected i.p. with either the TAT, L-TAT-IB1 and D-TAT-IB1 peptides (30  $\mu$ l of a 1mM solution). Briefly, mice were irradiated as follows: mice were placed in small plastic boxes with the head lying outside the box. The animals were placed on their back under the irradiator, and their neck fixed in a small plastic tunnel to maintain their head in a correct position. The body was protected with lead. Prior to irradiation mice were maintained on standard pellet mouse chow, however post irradiation mice were fed with a semi-liquid food that was renewed each day. --

Please replace the paragraph beginning at page 36, line 3 with the following paragraph:

-- FIG. 12A: illustrated the weight of the mice following irradiation. Values are reported to the initial weight of the mice that was set to 100. CTRL: control mice injected with 30  $\mu$ l of a saline solution. n=2 for each values reported, S.D. are indicated. x values are days --

Please replace the paragraph beginning at page 36, line 12 with the following paragraph:

-- Gel retardation assays were carried out with an AP-1 doubled labeled probe ( 5'- CGC TTG ATG AGT CAG CCG GAA-3' (SEQ ID NO:21). HeLa cell nuclear extracts that were treated or not for one hour with 5 ng/ml ~~TNF~~  $\square$  TNF- $\alpha$ , as indicated. TAT and L-TAT-IB1 peptides were added 30 minutes before ~~TNF~~  $\square$  TNF- $\alpha$ . Only the part of the gel with the specific AP-1 DNA complex (as demonstrated by competition experiments with non-labeled specific and non-specific competitors) is shown. L-TAT -IB1 peptides decrease the formation of the AP-1 DNA binding complex in the presence of ~~TNF~~  $\square$  TNF- $\alpha$ . (See, FIG 11). --